**APPENDIX F**

**High Volume and Performance Sensitive Transaction Classes
and Concurrent Usage Assumptions**

**F   High Volume And Performance Sensitive Transaction Classes And Concurrent Usage Assumptions**

This appendix outlines EASI/ED transactions that deserve special consideration due to either their volume, various aspects of processing, and/or concurrent user access.  Also included are the necessary assumptions used for calculating usage.

**F.1   High Volume and Performance Sensitive Transaction Class**

For this section of the appendix, table F-1 is separated into ten columns that display the transaction classes found to be high volume and/or performance sensitive.  The columns are defined as follows:

- **EASI Subsystem** – this column identifies the EASI subsystem in which the transaction occurs.

- **Title IV Re-Use Candidate** – this column identifies the primary Title IV system that processes the transaction. An entry of "N/A" indicates that the transaction is not associated with a specific Title IV re-use candidate system.

- **Process** – this column identifies the process in which the transaction takes place.

- **Transaction and Direction Flow** – this column identifies the transaction and indicates the direction it takes while processing.

- **Trans Type** – this column identifies the performance sensitive transaction class where the transaction is categorized.  The transaction is deemed performance sensitive if it falls into one or more of the following categories:

    - A "1" in this column designates a transaction that is an online update with high-volume activity.  High volume online transactions often produce bottlenecks during transaction processing and can cause users to experience slower response times.
    - A "2" designates transactions with long and complex access paths - A transaction may access multiple data entity types.  As transactions access multiple entity types and access these entity types more than once, the data access path taken by the transaction can become extremely long and complex.

- **Turnaround** – this column identifies the maximum allowable time for completion of the transaction.  An entry of  "N/A" indicates turnaround time is not available for this transaction. Otherwise this information may be displayed as the number of days or months, just-in-time indicating turnaround time is immediate or in a relatively short time period, or with the stipulation that it occurs within ninety five percent of current performance based guidelines based on ED's benchmark timeframe for processing based on PBO documentation.  Online transactions are expected to be completed within the response times designated in subsection 4.4.1.2.

- **Annual Growth Rate** – this column identifies any expected or assumed growth rates for the transaction. In most cases where a growth rate was not available, a conservative growth estimate of three to five percent is presumed, depending on past growth. An entry of "N/A" indicates the growth rate was not available to estimate future growth.

- **Estimated Volume for 2001** – this column identifies the expected volume for 2001."Unknown" indicates that the information was not available to estimate the future volume.

- **Peak Qtr**. – the peak quarter is based on the calendar being January 1 – December 31. N/A indicates that there is no identifiable peak processing period.

- **Comments** – this column contains any additional comments or assumptions that are used in calculating any of the entries in the previous columns.

| EASI Subsystem | Title IV Re-Use Candidate | Process | Transaction and Direction Flow | Trans Type | Turn-Around Time | Annual Growth Rate | Estimated Volume for 2001 | Peak Qtr. | Comments |
|---|---|---|---|---|---|---|---|---|---|
| Aid Application | CPS, MDE | Assess Participant Eligibility | Aid Eligibility Determination (From EASI/ED to: <br> - Guaranty Agency <br> - Private Scholarship Agency <br> - State Agency <br> - Schools <br> - Lenders <br> - Participant) | 2 | 8 days or less | 5 percent | 10,087,875 | 1st | Applicant's eligibility to receive financial aid (Federal grants, work-study, subsidized loans, unsubsidized loans) as determined by various criteria such as estimated family contribution (EFC) and income. <br><br> As per the following document: http://www.ed.gov/offices/AC/ACSFA/pro52.html, the number of original and renewal aid applications for 1998 is estimated to be 9.15 million. The number of aid eligibility transactions is estimated to be equal to the number of original and renewal applications. Assume 5 percent growth rate. <br><br> 9.15 million x 1.05 x 1.05 x 1.05 = 10,087,875 <br><br> Approximately 45 percent of the financial aid applications are processed during the first quarter. 80 - 85 percent of the applications processed during the first quarter occurs during February and March. |

| EASI Subsystem | Title IV Re-Use Candidate | Process | Transaction and Direction Flow | Trans Type | Turn-Around Time | Annual Growth Rate | Estimated Volume for 2001 | Peak Qtr. | Comments |
|---|---|---|---|---|---|---|---|---|---|
| Aid Application | CPS, MDE | Assess Participant Eligibility | Request for Aid Eligibility Determination (To EASI/ED from:<br>– Guaranty Agency<br>– Private Scholarship<br>– State Agency<br>– School<br>– Lender | 2 | 8 days or less | 5 percent | 10,087,875 | 1st | A request for an applicant's eligibility to receive financial aid (Federal grants, work-study, subsidized loans, unsubsidized loans) as determined by various criteria such as estimated family contribution (EFC) and, income, etc.<br><br>As per the following document: http://www.ed.gov/offices/AC/ACSFA/pro52.html, the number of original and renewal aid applications processed for 1998 is estimated to be 9.15 million. The number of requests for aid eligibility transactions is estimated to be equal to the number of original and renewal applications.<br><br>9.15 million x 1.05 x 1.05 x 1.05 = 10,087,875<br><br>Approximately 45 percent of the financial aid applications are processed during the first quarter. 80 - 85 percent of the applications processed during the first quarter occurs during February and March. |

| EASI Subsystem | Title IV Re-Use Candidate | Process | Transaction and Direction Flow | Trans Type | Turn-Around Time | Annual Growth Rate | Estimated Volume for 2001 | Peak Qtr. | Comments |
|---|---|---|---|---|---|---|---|---|---|
| Aid Application | CPS, EDExpress | Manage Application | Aid Application Corrections (From Participant to EASI/ED) | 1,2 | 8 days or less | 5 percent | 4,630,000 | 1st | Participant application corrections and updates to previous year information.<br><br>As per the following document: http://www.ed.gov/offices/AC/ACSFA/pro52.html, the number of original and renewal aid application corrections processed for 1998 is estimated to be 4 million.<br><br>4 million x 1.05 x 1.05 x 1.05 = 4,630,000<br><br>Approximately 45 percent of the financial aid applications are processed during the first quarter.  80 - 85 percent of the applications processed during the first quarter occurs during February and March. |

| EASI Subsystem | Title IV Re-Use Candidate | Process | Transaction and Direction Flow | Trans Type | Turn-Around Time | Annual Growth Rate | Estimated Volume for 2001 | Peak Qtr. | Comments |
|---|---|---|---|---|---|---|---|---|---|
| Aid Application | CPS, EDExpress | Manage Application | Aid Application Information (From Participant to EASI/ED) | 2 | 8 days or less | 5 percent | 10,087,875 | 1st | Information necessary to determine a participant's eligibility for financial aid.<br><br>As per the following document: http://www.ed.gov/offices/AC/ACSFA/pro52.html, the number of original and renewal aid application information transactions processed for 1998 is estimated to be 9.15 million. The number of applicants is estimated to be equal to the number of original and renewal applications.<br><br>9.15 million x 1.05 x 1.05 x 1.05 = 10,087,875<br><br>Approximately 45 percent of the financial aid applications are processed during the first quarter. 80 - 85 percent of the applications processed during the first quarter occurs during February and March. |

| EASI Subsystem | Title IV Re-Use Candidate | Process | Transaction and Direction Flow | Trans Type | Turn-Around Time | Annual Growth Rate | Estimated Volume for 2001 | Peak Qtr. | Comments |
|---|---|---|---|---|---|---|---|---|---|
| Aid Application | CPS | Manage Application | Aid Application Status (To Participant From EASI/ED) | 1 | 8 days or less | 5 percent | 4,597,241 | 1st | Notification provided to the participant regarding status of financial aid application, indicating that the application needs further information from the participant before additional processing can occur.<br><br>As per the following document: http://www.ed.gov/offices/AC/ACSFA/pro52.html, the number of aid application status transactions is estimated to be equal to the number of aid application corrections processed in 1998.<br><br>3,971,269 x 1.05 x 1.05  x 1.05 = 4,597,241<br><br>Approximately 45 percent of the financial aid applications are processed during the first quarter.  80 - 85 percent of the applications processed during the first quarter occurs during February and March. |

| EASI Subsystem | Title IV Re-Use Candidate | Process | Transaction and Direction Flow | Trans Type | Turn-Around Time | Annual Growth Rate | Estimated Volume for 2001 | Peak Qtr. | Comments |
|---|---|---|---|---|---|---|---|---|---|
| Aid Application | N/A | Manage Application | PIN Assignment (To Participant from EASI/ED) | 1 | 8 days or less | 5 percent | 10,087,875 | 1st | Assume one PIN assignment per application.<br><br>As per the following document: http://www.ed.gov/offices/AC/ACSFA/pro52.html, the number of original and renewal aid applications processed for 1998 is estimated to be 9.15 million. The number of applicants is estimated to be equal to the number of original and renewal applications.<br><br>9.15 million x 1.05 x 1.05 x 1.05 = 10,087,875<br><br>Approximately 45 percent of the financial aid applications are processed during the first quarter. 80 - 85 percent of the applications processed during the first quarter occurs during February and March. |

| EASI Subsystem | Title IV Re-Use Candidate | Process | Transaction and Direction Flow | Trans Type | Turn-Around Time | Annual Growth Rate | Estimated Volume for 2001 | Peak Qtr. | Comments |
|---|---|---|---|---|---|---|---|---|---|
| Aid Application | CPS, EDExpress | Manage Renewal Application | Aid Applications (From Participant to EASI/ED) | 1,2 | 8 days or less | 5 percent | 3,792,600 | 1$^{st}$ | The number of aid renewal applications.<br><br>As per the following document: http://www.ed.gov/offices/AC/ACSFA/pro52.html, the number of electronic and paper renewal applications processed for 1998 is estimated to be 140,000 and 3.3 million, respectively.<br><br>(140,000 + 3.3 million) x 1.05 x 1.05 = 3,792,600<br><br>Approximately 45 percent of the financial aid applications are processed during the first quarter. 80 - 85 percent of the applications processed during the first quarter occurs during February and March. |

| EASI Subsystem | Title IV Re-Use Candidate | Process | Transaction and Direction Flow | Trans Type | Turn-Around Time | Annual Growth Rate | Estimated Volume for 2001 | Peak Qtr. | Comments |
|---|---|---|---|---|---|---|---|---|---|
| Aid Application | CPS | Manage Renewal Application | Renewal Aid Application Information (To Participant From EASI/ED, To School From EASI/ED) | 1,2 | 8 days or less | 5 percent | 3,792,600 | 1st | EASI/ED provides participant (s) aid application information to schools based on various selection criteria.<br><br>As per the following document: http://www.ed.gov/offices/AC/ACSFA/pro52.html, the number of financial aid electronic and paper renewal applications processed for 1998 is estimated to be 140,000 and 3.3 million, respectively.<br><br>(140,000 + 3.3 million) x 1.05 x 1.05 = 3,792,600<br><br>Approximately 45 percent of the financial aid applications are processed during the first quarter. 80 - 85 percent of the applications processed during the first quarter occurs during February and March. |

| EASI Subsystem | Title IV Re-Use Candidate | Process | Transaction and Direction Flow | Trans Type | Turn-Around Time | Annual Growth Rate | Estimated Volume for 2001 | Peak Qtr. | Comments |
|---|---|---|---|---|---|---|---|---|---|
| Aid Application | CPS | Manage Renewal Application | Request for Renewal Aid Applications (From School To EASI/ED) | 1 | 8 days or less | 5 percent | 2,000,000 | 1$^{st}$ | The number of request for renewal aid applications.<br><br>As per the following document: http://www.ed.gov/offices/AC/ACSFA/pro52.html, the number of financial aid electronic and paper renewal applications processed for 1998 is estimated to be 140,000 and 3.3 million, respectively.  Per the Technical Vision and Target Architecture and information gathered from ED questionnaires, assume 50 percent of the renewal applications requests come from the school.  The estimated volume for requests for renewal aid applications is 1.72 million.<br><br>In 1998 3.44 million electronic and paper renewal applications processed.  Assume 50 percent of the renewal aid applications come from schools.<br>1.72 million x 1.05 x 1.05 x 1.05= 1,991,115<br>Approximately 45 percent of the financial aid applications are processed during the first quarter.  80 – 85 percent of the applications processed during the first quarter occurs between February and March. |

| EASI Subsystem | Title IV Re-Use Candidate | Process | Transaction and Direction Flow | Trans Type | Turn-Around Time | Annual Growth Rate | Estimated Volume for 2001 | Peak Qtr. | Comments |
|---|---|---|---|---|---|---|---|---|---|
| Aid Application | CPS | Obtain Eligibility Assessment Information | Eligibility Assessment Information (From Guaranty Agency To EASI/ED, From Third Party Repository To EASI/ED) | 2 | 8 days or less | 5 percent | 10,087,875 | 1st | Participant-specific eligibility assessment information necessary to calculate total eligibility for financial aid.<br><br>As per the following document: http://www.ed.gov/offices/AC/ACSFA/pro52.html, the number of original and renewal aid applications processed for 1998 is estimated to be 9.15 million. The number of applicants is estimated to be equal to the number of original and renewal aid applications.<br><br>9.15 million x 1.05 x 1.05 x 1.05 = 10,087,875<br><br>Approximately 45 percent of the financial aid applications are processed during the first quarter. 80 - 85 percent of the applications processed during the first quarter occurs between February and March. |

| EASI Subsystem | Title IV Re-Use Candidate | Process | Transaction and Direction Flow | Trans Type | Turn-Around Time | Annual Growth Rate | Estimated Volume for 2001 | Peak Qtr. | Comments |
|---|---|---|---|---|---|---|---|---|---|
| Aid Application | CPS | Obtain Eligibility Assessment Information | Untaxed Income, Taxes Paid and AGI (From Internal Revenue Service To EASI/ED) | 2 | 8 days or less | 5 percent | 10,087,875 | 1st | Participant untaxed income, adjusted gross income (AGI), and taxes paid information.<br><br>As per the following document: http://www.ed.gov/offices/AC/ACSFA/pro52.html, the number of financial aid applications processed for 1998 is estimated to be 9.15 million.  The number of requests for untaxed income, taxes paid, and AGI information is estimated to be equal to the number of applications.<br><br>9.15 million x 1.05 x 1.05  x 1.05 = 10,087,875<br><br>Approximately 45 percent of the financial aid applications are processed during the first quarter.  80 - 85 percent of the applications processed during the first quarter occurs between February and March. |

| EASI Subsystem | Title IV Re-Use Candidate | Process | Transaction and Direction Flow | Trans Type | Turn-Around Time | Annual Growth Rate | Estimated Volume for 2001 | Peak Qtr. | Comments |
|---|---|---|---|---|---|---|---|---|---|
| Aid Application | N/A | Perform Financial Simulation | Financial Simulation Models (To Participant From EASI/ED) | 1 | 8 days or less | 5 percent | 5,296,134 | N/A | Financial simulation models provide information regarding career paths and expected incomes, state aid information, and school aid performance information.<br><br>Assume 50 percent of the applicants choose to do financial simulation models.<br>9.15 million / 2 x 1.05 x 1.05 x 1.05 = 5,296,134 |

| EASI Subsystem | Title IV Re-Use Candidate | Process | Transaction and Direction Flow | Trans Type | Turn-Around Time | Annual Growth Rate | Estimated Volume for 2001 | Peak Qtr. | Comments |
|---|---|---|---|---|---|---|---|---|---|
| Aid Origination / Disbursement | RFMS | Check Origination | Disbursement Records (From School To EASI/ED) | 1 | Just In Time | 5 percent | 42,225,750 | 1$^{st}$ 3rd | Dates and amounts of the aid disbursements and to whom the funds will be disbursed.<br><br>As per the following document: http://www.ed.gov/offices/OUS/Budget00/BudgetSum/pages/sum-e.html, the number of origination records for 1999 is: Direct Loans – 3.1 million; FWS - 1 million; FSEOG – 1.1 million; Perkins - 0.7 million.<br><br>Per ED, there are approximately 23—30 million disbursements for Pell disbursements amongst 3.9 million students. Pell – 26.5 million<br>Assume an average of 2 disbursements per origination record. The total number of disbursement records is estimated to be: 3.1 million x 2 + 1 million x 2 + 1.1 million x 2 + .7 million + 26.5 million = 38.3 mill. Assume 5 percent growth rate 38.3 million x 1.05 x 1.05 = 42,225,750 The peak quarters for disbursements processing occur in the 1st and 3rd quarters and coincide with the start of the fall and spring semesters. Approximately 50 percent of the disbursement processing occurs in January. |

| EASI Subsystem | Title IV Re-Use Candidate | Process | Transaction and Direction Flow | Trans Type | Turn-Around Time | Annual Growth Rate | Estimated Volume for 2001 | Peak Qtr. | Comments |
|---|---|---|---|---|---|---|---|---|---|
| Aid Origination / Disbursement | N/A | Check Origination | Disbursement Records (From Lender To EASI/ED) | 1 | Just In Time | 5 percent | 12,340,000 | 1st 3rd | Dates and amounts of the aid disbursements and to whom the funds will be disbursed.<br><br>As per the following document: http://www.ed.gov/offices/OUS/Budget00/BudgetSum/pages/sum-e.html, the number of origination records for 1999 is:<br>FFEL – 5.6 million<br><br>Assume an average of 2 disbursements per FFEL Loan per origination record. The total number of disbursement records is estimated to be: 5.6 million x 2 = 11.2 million.  Assume 5 percent growth rate.<br><br>11.2 million x 1.05 x 1.05 = 12,340,000<br><br>The peak quarters for disbursements processing occur in the 1st and 3rd quarters and coincide with the start of the fall and spring semesters. Approximately 50 percent of the disbursement processing occurs in January. |

| EASI Subsystem | Title IV Re-Use Candidate | Process | Transaction and Direction Flow | Trans Type | Turn-Around Time | Annual Growth Rate | Estimated Volume for 2001 | Peak Qtr. | Comments |
|---|---|---|---|---|---|---|---|---|---|
| Aid Origination / Disbursement | RFMS, LOS | Check Origination | Edit Result (From Lender To EASI/ED, To/From School From/To EASI/ED) | 1 | Within 95 Percent | 5 percent | 42,225,750 | 1st 3rd | Acceptance or rejection of a school's submission of disbursement record(s).<br><br>Refer to Disbursement Records transaction document reference.<br><br>Assume the number of edit results transactions equals the number of disbursement records. The total number of disbursement records is estimated to be: 3.1 million x 2 + 1 million x 2 + 1.1 million x 2 + .7 million + 26.5 million = 38.3 million. Assume 5 percent growth rate.<br>38.3 million x 1.05 x 1.05 = 42,225,750<br><br>The peak quarters for disbursements processing occur in the 1st and 3rd quarters and coincide with the start of the fall and spring semesters. Approximately 50 percent of the disbursement processing occurs in January. |

| EASI Subsystem | Title IV Re-Use Candidate | Process | Transaction and Direction Flow | Trans Type | Turn-Around Time | Annual Growth Rate | Estimated Volume for 2001 | Peak Qtr. | Comments |
|---|---|---|---|---|---|---|---|---|---|
| Aid Origination / Disbursement | RFMS | Check Origination | Loan Demographic Information (To Lender From EASI/ED) | 1,2 | 10 days | 10 percent | 2,111,288 | N/A | This is the loan demographic information transaction.<br><br>Refer to Disbursement Records transaction document reference.<br><br>Assume 5 percent of the loan demographic information transactions need adjustments.<br>Assume an average of 2 disbursements per origination record. The total number of disbursement records is estimated to be: 3.1 millionx 2 + 1 millionx 2 + 1.1 millionx 2 + .7 million + 26.5 million= 38.3 mill. Assume 5 percent growth rate.<br>38.3 millionx 5 percent x 1.05 x 1.05 = 2,111,288 |

| EASI Subsystem | Title IV Re-Use Candidate | Process | Transaction and Direction Flow | Trans Type | Turn-Around Time | Annual Growth Rate | Estimated Volume for 2001 | Peak Qtr. | Comments |
|---|---|---|---|---|---|---|---|---|---|
| Aid Origination / Disbursement | RFMS | Check Origination | Loan Terms, Disbursements, Adjustments, Cancellations (To Lender From EASI/ED) | 1 | 10 days | 5 percent | 10,556,438 | 1st 3rd | Loan Terms, Disbursement amounts, dates, conditions, adjustments, and cancellations due to changes in enrollment eligibility.<br><br>Refer to Disbursement Records transaction document reference.<br><br>Assume 25 percent of the loan terms, disbursements, adjustments, cancellation transactions require adjustments. Assume 2 disbursements per loan. The total number of disbursement records is estimated to be: 3.1 millionx 2 + 1 millionx 2 + 1.1 millionx 2 + .7 million + 26.5 million= 38.3 mill. Assume 5 percent growth rate.<br>38.3 millionx 25 percent x 1.05 x 1.05 = 10,556,438<br><br>The peak quarters for disbursements processing occur in the 1st and 3rd quarters and coincide with the start of the fall and spring semesters. Approximately 50 percent of the disbursement processing occurs in January. |

| EASI Subsystem | Title IV Re-Use Candidate | Process | Transaction and Direction Flow | Trans Type | Turn-Around Time | Annual Growth Rate | Estimated Volume for 2001 | Peak Qtr. | Comments |
|---|---|---|---|---|---|---|---|---|---|
| Aid Origination / Disbursement | RFMS | Check Origination | Origination Record (To/From School From /To EASI/ED) | 1,2 | 10 days | 5 percent | 11,135,250 | 3rd | All of the data necessary to create an origination record.<br><br>Refer to Disbursement Records transaction document reference.<br><br>Assume one origination record per Direct Loan, Consolidation Loan, FWS, FSEOG, and Perkins Loan, and Pell Grant. The total number of origination records is estimated to be 3.1 million .3 million+ 1 million+ 1.1 million + .7 million + 3.9 million = 10.1 million origination records.  Assume 5 percent growth rate.<br><br>10.1 million x 1.05 x 1.05 = 11,135,250<br><br>In 1997 and 1998, approximately 50 - 55 percent of the loan originations were processed during the third quarter. |

| EASI Subsystem | Title IV Re-Use Candidate | Process | Transaction and Direction Flow | Trans Type | Turn-Around Time | Annual Growth Rate | Estimated Volume for 2001 | Peak Qtr. | Comments |
|---|---|---|---|---|---|---|---|---|---|
| Aid Origination / Disbursement | N/A | Check Origination | Origination Record (From Lender To EASI/ED) | 1,2 | 10 days | 5 percent | 6,174,000 | 3$^{rd}$ | All of the data necessary to originate an instance of aid.<br><br>As per the following document: http://www.ed.gov/offices/OUS/Budget00/BudgetSum/pages/sum-e.html, the number of origination records for 1999 is:<br>FFEL – 5.6 million<br><br>Assume one origination record per FFEL Loan. The total number of origination records is estimated to be 5.6 million.  Assume 5 percent growth rate.<br><br>5.6 million x 1.05 x 1.05 = 6,174,000<br><br>In 1997 and 1998, approximately 50 - 55 percent of the loan originations were processed during the third quarter. |

| EASI Subsystem | Title IV Re-Use Candidate | Process | Transaction and Direction Flow | Trans Type | Turn-Around Time | Annual Growth Rate | Estimated Volume for 2001 | Peak Qtr. | Comments |
|---|---|---|---|---|---|---|---|---|---|
| Aid Origination / Disbursement | LCS | Originate Consolidated Direct Loan | Loan Demographic Information (To Lender From EASI/ED) | 2 | 60 days or less | 5 percent | 16,538 | N/A | Loan demographic information, adjustments, and cancellations due to changes in enrollment and eligibility. This number is variable.<br><br>As per the following document: http://www.ed.gov/offices/OUS/Budget00/BudgetSum/pages/sum-e.html, the number of origination records for 1999 is:<br>Consolidation Loan - .3 million<br><br>Assume 55 percent of the disbursements require adjustments.  Assume 5 percent growth rate.<br><br>.3 million x 5 percent x 1.05 x 1.05 = 16,538 |

| EASI Subsystem | Title IV Re-Use Candidate | Process | Transaction and Direction Flow | Trans Type | Turn-Around Time | Annual Growth Rate | Estimated Volume for 2001 | Peak Qtr. | Comments |
|---|---|---|---|---|---|---|---|---|---|
| Aid Origination / Disbursement | N/A | Process Participant Disbursement Request | Disbursement Request w/ Amount (To/From Participant From/To EASI/ED) | 1 | N/A | 5 percent | 36,051,750 | 1$^{st}$ 3rd | Disbursement request is the business event triggered by the student to release the next aid disbursement.  The student also designates the amount of the disbursement and the time period the funds are necessary. Refer to Disbursement Records transaction document reference. Assume the number of disbursement request transactions is equal to the number of disbursements.  Assume an average of 2 disbursements per Direct Loan, 2 disbursements per FWS, 2 disbursements per FSEOG, and 2 disbursement per Perkins loan..  The total number of disbursement records is estimated to be: 3.1 million x 2 + 1 million x 2 + 1.1 million x 2 + .7 million x 2 = 11.8 million.  Assume 5 percent growth rate. 11.8 million x 1.05 x 1.05 = 13,009,500 The peak quarters for disbursements processing occur in the 1st and 3rd quarters and coincide with the start of the fall and spring semesters. Approximately 50 percent of the disbursement processing occurs in January. |

| EASI Subsystem | Title IV Re-Use Candidate | Process | Transaction and Direction Flow | Trans Type | Turn-Around Time | Annual Growth Rate | Estimated Volume for 2001 | Peak Qtr. | Comments |
|---|---|---|---|---|---|---|---|---|---|
| Aid Origination / Disbursement | RFMS | Process Participant Disbursement Request | Student Statement of Account (To Participant From EASI/ED) | 1,2 | Within 95 Percent | 5 percent | 8,508,544 | N/A | This is the student statement of account transaction.<br><br>As per JIG, the number of student statement of account transactions is estimated to be 7 million in 1997.<br><br>Assume 5 percent growth rate.<br>7 million x 1.05 x 1.05 x 1.05 x 1.05 = 8,508,544 |
| Aid Repayment | N/A | Manage Aid Status | Deferment / Forbearance Requests (To/From EASI/ED From/To: - Guaranty - Agency - Lender - Participant) | 2 | Within 95 Percent | 5 percent | 482,379 | N/A | Request for a deferment or forbearance.<br><br>As per ED OSFAP-IT Investment Management Project data, the number of deferment and forbearance requests was 437,532 in 1998. Assume 5 percent growth rate.<br><br>437,532 x 1.05 x 1.05 = 482,379 |

| EASI Subsystem | Title IV Re-Use Candidate | Process | Transaction and Direction Flow | Trans Type | Turn-Around Time | Annual Growth Rate | Estimated Volume for 2001 | Peak Qtr. | Comments |
|---|---|---|---|---|---|---|---|---|---|
| Aid Repayment | N/A | Manage Aid Status | Loan Discharge Request (From Guaranty Agency To EASI/ED, From Lender To EASI/ED, From School To EASI/ED, To School From EASI/ED) | 2 | Within 95 Percent | N/A | Unknown | N/A | The school notifies EASI/ED of loan discharges. Requests for loan discharge based on certain criteria (i.e., bankruptcy, death, and disability). |
| Aid Repayment | N/A | Manage Aid Status | Request for Loan Discharge (To/From Participant From/To EASI/ED) | 2 | Within 95 Percent | 5 percent | 23,150 | N/A | The participant or the participant's family sends a request to the system to have the loan discharged for disability, death or school closure reasons.<br><br>In 1998 – 20,000 and growth rate of 5 percent.<br>20,000 x 1.05 x 1.05 x 1.05 = 23,152 |

| EASI Subsystem | Title IV Re-Use Candidate | Process | Transaction and Direction Flow | Trans Type | Turn-Around Time | Annual Growth Rate | Estimated Volume for 2001 | Peak Qtr. | Comments |
|---|---|---|---|---|---|---|---|---|---|
| Aid Repayment | N/A | Manage Repayment Counseling | Repayment Counseling Completion (From Participant To EASI/ED) | 1 | Within 95 Percent | 5 percent | 3,038,766 | N/A | Confirmation that a participant has received repayment counseling.<br><br>As per 12/3/97 JIG (Student disbursement, Repayment notification, counseling Repayment plans, invoicing, Repayment counseling, Repayment information (deferments, forbearance, etc.,)), about 2-3 million counseling packages were sent in 1997.<br><br>Assume 5 percent growth rate. 2,500,000 x 1.05 x 1.05 x 1.05 x 1.05 = 3,038,766 |
| Aid Repayment | N/A | Manage Repayment Counseling | Repayment Counseling Notification (To/From Participant From/To EASI/ED, To School From EASI/ED) | 1 | Within 95 Percent | 5 percent | 3,038,766 | N/A | As per 12/3/97 JIG (Student disbursement, Repayment notification, counseling Repayment plans, invoicing, Repayment counseling, Repayment information (deferments, forbearance, etc.,)), about 2-3 million counseling packages were sent in 1997.<br><br>Assume 5 percent growth rate. 2,500,000 x 1.05 x 1.05 x 1.05 x 1.05 = 3,038,766 |

| EASI Subsystem | Title IV Re-Use Candidate | Process | Transaction and Direction Flow | Trans Type | Turn-Around Time | Annual Growth Rate | Estimated Volume for 2001 | Peak Qtr. | Comments |
|---|---|---|---|---|---|---|---|---|---|
| Aid Repayment | N/A | Select Repayment Option | Repayment Options/ Methods Decision (To/From Lender From/To EASI/ED, From Participant To EASI/ED) | 1 | N/A | 5 percent | 3,038,766 | N/A | As per 2/17/97 JIG (Loan Repayment) and CDS SVCR database: Repayment Setup Transaction (DPT), DLSS Central Database Subsystem (CDS) Servicer Interface Manual, page 4-3, the repayment options / method number is between 2 and 3 million.<br><br>Assume an average of 2.5 million and a 5 percent growth rate.<br>2.5 million x 1.05 x 1.05 x 1.05 x 1.05 = 3,038,766 |
| PMO | NSLDS | Manage Aid Organization Appeal | Appeal Decision (with corrections) (From ED/OPE/GLOS To EASI/ED and From EASI/ED To - Guaranty Agency - Lender - Guaranty Agency/Direct Loan Servicer - School ) | 2 | 6 months | 5 percent | 183 | N/A | The Department of Education's notification to the school or aid organization of its final decision on an appeal.<br><br>As per 11/24/97 JIG (GA, Lenders and Servicers Program and Financial Oversight), the volume of appeal decision (with corrections) is estimated to be 150 annually. Assume 5 percent growth rate.<br><br>150 x 1.05 x 1.05 x 1.05 x 1.05 = 183 |

| EASI Subsystem | Title IV Re-Use Candidate | Process | Transaction and Direction Flow | Trans Type | Turn-Around Time | Annual Growth Rate | Estimated Volume for 2001 | Peak Qtr. | Comments |
|---|---|---|---|---|---|---|---|---|---|
| PMO | NSLDS | Manage Aid Organization Appeal | Cohort Default Rate Appeals (with corrected information) (To ED/OPE/GLOS From EASI/ED, From Guaranty Agency To EASI/ED, From Lender To EASI/ED) | 2 | N/A | 5 percent | 183 | N/A | Schools and lenders may appeal the calculation of their cohort default rates based on erroneous data, improper servicing or mitigating factors.<br><br>As per 2/19/98 JIG (Default Rates), the volume of appeal decision (with corrections) is estimated to be 150 annually in 1997. Assume 5 percent growth rate.<br><br>150 x 1.05 x 1.05 x 1.05 x 1.05 = 183 |
| PMO | N/A | Manage Aid Organization Appeal | GA Appeal Response (with corrections) (To ED/OPE/GLOS From EASI/ED, From Guaranty Agency To EASI/ED, To School From EASI/ED) | 2 | 6 months | 5 percent | 183 | N/A | A Guaranty Agency or Direct Loan Servicer response to a school's or lender's appeal. The response would include any corrected information if applicable.<br><br>As per 11/24/97 JIG (GA, Lenders and Servicers Program and Financial Oversight), the volume of GA appeal response ( with corrections is estimated to be 150 annually in 1997. Assume 5 percent growth rate.<br><br>150 x 1.05 x 1.05 x 1.05 x 1.05 = 183 |

| EASI Subsystem | Title IV Re-Use Candidate | Process | Transaction and Direction Flow | Trans Type | Turn-Around Time | Annual Growth Rate | Estimated Volume for 2001 | Peak Qtr. | Comments |
|---|---|---|---|---|---|---|---|---|---|
| PMO | N/A | Manage Cohort Default Rate Appeal | Appeal Decisions (with corrections) (From ED/OPE/IPOS To EASI/ED, To Guaranty Agency/Direct Loan Servicer From EASI/ED, To School From EASI/ED) | 2 | N//A | 5 percent | 9,724 | N/A | The Department of Educations's notification to the school or aid organization of its final decision on an appeal.<br><br>As per 2/19/98 JIG (Default Rates), the volume of appeal decision (with corrections) is estimated to be 8,000 in 1997. Assume 5 percent growth rate.<br><br>8,000 x 1.05 x 1.05 x 1.05 x 1.05 = 9,724 |
| PMO | N/A | Manage Cohort Default Rate Appeal | Appeal Status (From ED/OPE/IPOS To EASI/ED, To Guaranty Agency/Direct Loan Servicer From EASI/ED, To School From EASI/ED) | 2 | N/A | 5 percent | 9,724 | N/A | The appeal status indicates the current status that an appeal is in at a given point of time.<br><br>As per 2/19/98 JIG (Default Rates), the volume of appeal decision (with corrections) is estimated to be 8,000 in 1997. Assume 5 percent growth rate.<br><br>8,000 x 1.05 x 1.05 x 1.05 x 1.05 = 9,724 |

| EASI Subsystem | Title IV Re-Use Candidate | Process | Transaction and Direction Flow | Trans Type | Turn-Around Time | Annual Growth Rate | Estimated Volume for 2001 | Peak Qtr. | Comments |
|---|---|---|---|---|---|---|---|---|---|
| PMO | NSLDS | Manage Cohort Default Rate Appeal | Cohort Default Rate Appeals (with corrected information) (To ED/OPE/IPOS From EASI/ED, To Guaranty Agency/Direct Loan Servicer From EASI/ED, From School To EASI/ED) | 2 | N/A | 5 percent | 9,724 | N/A | A school may appeal the calculation of its Cohort Default Rate if it believes the rate is based on erroneous data, improper servicing or mitigating factors.

As per 2/19/98 JIG (Default Rates), the volume of appeal decisions (with corrections) is estimated to be 8,000 in 1997.  Assume 5 percent growth rate.

8,000 x 1.05 x 1.05 x 1.05 x 1.05 = 9,724 |
| PMO | NSLDS | Manage Cohort Default Rate Appeal | GA Appeal Response (with corrections) (To ED/OPE/IPOS From EASI/ED, From Guaranty Agency/Direct Loan Servicer To EASI/ED, To School From EASI/ED) | 2 | N/A | 5 percent | 9,724 | N/A | A Guaranty Agency or Direct Loan Servicer response to a school's or lender's appeal.  The response would include any corrected information if applicable.

As per 2/19/98 JIG (Default Rates), the volume of appeal decision (with corrections) is estimated to be 8,000 in 1997.  Assume 5 percent growth rate.

8,000 x 1.05 x 1.05 x 1.05 x 1.05 = 9,724 |

| EASI Subsystem | Title IV Re-Use Candidate | Process | Transaction and Direction Flow | Trans Type | Turn-Around Time | Annual Growth Rate | Estimated Volume for 2001 | Peak Qtr. | Comments |
|---|---|---|---|---|---|---|---|---|---|
| PMO | N/A | Manage School Appeal | Appeal Status (non default rate) (From ED/OPE/IPOS To EASI/ED, To School From EASI/ED) | 2 | 6 months | 5 percent | 498 | N/A | Status of a particular non-default rate appeal. Factors may include whether action has been taken to remove probationary status and the correction of audit and program review compliance deficiencies.<br><br>As per ED, Cohort Default Rate Appeal Resolution and Automation Process, the volume of appeal status (non-default rate) is estimated to be 409 annually in 1997. Assume 5 percent growth rate.<br><br>409 x 1.05 x 1.05 x 1.05 x 1.05 = 498 |
| PMO | PEPS | Manage School Eligibility | Certification Application (To/From School From/To EASI/ED) | 2 | N/A | 0 percent | 6,200 | N/A | Certification application is the application a school must complete to be accepted as an aid organization into the Department of Education's student financial assistance programs.<br><br>This transaction occurs only once per school year and is based on the number of active schools tracked by NSLDS, 6,200. The volume for certification application is estimated to be 6,200 in 1997 and assumes no growth. |

**F.2    Concurrent Usage Assumptions**

The following assumptions were used to calculate concurrent usage numbers for subsection 4.4.1.1. The volumes utilized in the calculations are estimated Fiscal Year 2001 volumes. Although grounded in logic, it must be reiterated that small changes in these assumptions could have significant impact on the number of concurrent users calculated.

- Participant concurrent users during application – Assume 2,000,000 students fill out FAFSA online. Assume that forty-five percent of these online applications take place during the peak period in the first quarter. Assume these forty-five percent of FAFSAs are filled out evenly over that ninety-day peak period. Assume that eighty percent of participants fill these FAFSAs out between the hours of 8 AM and 8 PM EST. Assume it takes 8 hours to completely fill out FAFSA the first time, as not all information is readily available to the participant.

  (2,000,0000 x .45) / 90 = 10,000 participants filling out electronic FAFSA during peak period
  10,000 x .80 = 8,000 participants accessing the system between 8 AM and 8 PM
  8,000 participants concurrently accessing EASI/ED during Application.

- Participant concurrent users during origination and disbursement – Assume 3.1 million students receive direct loans (2001 projected amount assuming volume remains static). Assume all access the system evenly during the peak period of January $15^{th}$ – February $15^{th}$ (i.e. over a 30-day period). Assume eighty percent access the system between the hours of 8 AM and 8 PM EST. Assume they spend ten minutes checking disbursement status and/or authorizing disbursement, so 1/72 of these students are online concurrently at any one time (12 hours / 10 minutes = 72).

  3.1 M / 30 = 103,333 participants processing origination and disbursement information - peak
  103,333 x .80 = 82,666 participants accessing system between 8 AM and 8 PM
  82,666 / 72 = 1,148 participants concurrently accessing EASI/ED during origination & disbursement.

- School concurrent users during origination and disbursement – Assume 5 staffers per postsecondary institution (estimate based upon reviewing financial aid office websites for various sized postsecondary institutions). Assume 6,200 postsecondary institutions. Assume only thirty five percent process direct loans (as based upon current loan volumes). Assume all staff will access the system between the hours of 8 AM and 8 PM EST. Assume they spend two hours per day processing origination and disbursement information, so one sixth of these school personnel are online concurrently at any one time (12 hours / 2 hours per processing time = 6).

  6,200 x 5 = 31,000 total school financial aid staff
  31,000 x .35 = 10,850 school financial aid staff processing direct loan origination & disbursement data
  10,850 / 6 = 1,808 school staff concurrently accessing EASI/ED during origination & disbursement.

- Participant concurrent users during repayment – Total direct loans in 1998 = 3.1 million. Assume volume remains same through 2001, and that at that time, approximately 4 years of direct loan students will be in repayment (those borrowing 1993 – 1997). Therefore, in 2001, it can be expected that approximately 12.4 million participants are in repayment (3.1 M x 4). Assume eighty percent access the system between the hours of 8 AM and 8 PM EST. Assume they access repayment information monthly (i.e., period of access spans 30 days). Assume they spend 10 minutes online (per loan) accessing this information, so 1/72 of these students are online concurrently at any one time (12 hours / 10 minutes = 72).

  12.4 M x .80 = 9,920,000 participants checking repayment information between 8 AM and 8 PM.
  9,920,000 / 30 = 330,667 participants checking repayment over the course of a month.
  330,667 / 72 = 4,593 participants concurrently accessing EASI/ED during repayment

- ED concurrent users during repayment – ED staff in debt collection are approximately 237. Direct Loan Servicing Staff (from Baseline Characterization) is 112. Assume 1 in 10 are using system concurrently.

  237 + 112 / 10 = 34.9 ~ 35 concurrently accessing EASI/ED

- ED concurrent users during financial services – ED staff in RFMS are approximately 103. Assume 1 in 10 are using system concurrently.

  103 / 10 = 10.3 ~ 10 concurrently accessing EASI/ED

- School concurrent users accessing Program Management and Oversight information – Assume 5 staffers per postsecondary institution (estimate based upon reviewing financial aid office websites for various sized postsecondary institutions). Assume 6,200 postsecondary institutions. Assume no peak periods for processing program management information, so the opportunity to process information is over 260 days (52 weeks x 5 business days per week). Assume all access the system between the hours of 8 AM and 8 PM EST. Assume they spend, at most, 48 hours per year processing program management information.

  6,200 x 5 = 31,000 staffers
  260 x 12 = 3,120 hours processing time per year
  48 / 3,120 = .0154 hours spent on processing program information
  31,000 x .0154 = 477 school staff concurrently accessing EASI/ED for PMOS

- Financial institution concurrent users accessing Program Management and Oversight information – Given 4,000 active lenders. Given 36 guaranty agencies and state grant institutions. Assume three staff per lender (Significant number at a select few lenders, very small numbers of staff at majority of lenders). Assume 200 staff per guaranty agency/state grant agency (Significant number at a select few GAs, much smaller numbers of staff at majority of agencies). Assume no peak periods for processing program management information, so the opportunity to process information is over 260 days (52 weeks x 5 business days per week). Assume all access the system between the hours of 8 AM and 8 PM EST. Assume they spend, at most, 48 hours per year processing program management information.

  4,000 x 3 = 12,000 lender staff
  36 x 200 = 7,200 GA staff

12,000 + 7,200 = 19,200 total financial institution staff
260 x 12 = 3,120 hours processing time per year
48 / 3,120 = .0154 hours spent on processing program information
19,200 x .0154 = 295.68 ~ 296 financial institution staff concurrently accessing EASI/ED for PMOS

- ED concurrent users accessing Program Management and Oversight information – ED staff in IPOS and GLOS is 214 and 25, respectively.  Assume 1 in 10 are using system concurrently.

214 + 25 = 239
239 / 10 = 23.9 ~ 24 concurrently accessing EASI/ED